Perry 1
1Q/2004 Plant Inspection Findings

Initiating Events

Significance: Mar 31, 2004
Identified By: Self Disclosing
Item Type: FIN Finding
LOSS OF NORMAL POWER SUPPLY TO RPS BUS 'B'
A finding of very low safety significance was self-revealed when the normal power supply to reactor protection system (RPS) bus 'B' was lost on November 29, 2003. A comprehensive investigation by the licensee determined that an age-related failure of a contactor in the circuitry resulted in a blown fuse which de-energized RPS bus 'B.' The licensee's investigation also identified that General Electric (GE) Service Information Letter (SIL) 508 issued in 1990, if properly implemented, would have prevented the event. The licensee's immediate actions included restoration of RPS bus 'B' by transfer to the alternate power supply. The failed contactor was replaced. The primary cause of this finding was related to the cross-cutting area of Human Performance because the licensee's review of GE SIL 508 failed to identify all affected plant components.

This finding was more than minor because it was associated with reactor safety/initiating event cornerstone attribute of equipment performance and affected the cornerstone objective of limiting the likelihood of events that upset plant stability. The finding was of very low safety significance because mitigating system availability was unaffected. The affected contactors were not safety-related components. Therefore, no violation of regulatory requirements occurred.
Inspection Report# : 2004002*(pdf)*

Mitigating Systems

Significance: Mar 31, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
UNATTENDED ITEMS LEFT IN CONTAINMENT
A finding of very low safety significance was identified by the inspectors for a violation of Technical Specification 5.4, "Procedures." A licensee procedure required that unless risk-assessed, no items shall be left unattended below the 623' 4" level in containment at any time. On February 5, 2004, the inspectors observed a large sheet of permalon by the 'A' hydraulic power unit with no workers in the area. The licensee removed the material later that same day. The primary cause of this finding was related to the cross-cutting area of Human Performance because plant personnel failed to follow licensee procedures and left material unattended in the swell region of containment.

This finding was more than minor because the inspectors concluded that it could reasonably be viewed as a precursor to a more significant event. Specifically, leaving unattended items in containment can lead to the items falling into the suppression pool without being noticed or being transported into the pool during an actual event. This material can then clog suppression pool strainers thereby reducing emergency core cooling system flow. Since no material fell into the suppression pool and no actual loss of safety function occurred, the inspectors determined the finding to be of very low safety significance. This issue was a Non-Cited Violation of Technical Specification 5.4 which required implementation of procedures for performing maintenance that can affect the performance of safety-related equipment.
Inspection Report# : 2004002*(pdf)*

Significance: Dec 31, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO COMMUNICATE THAT THE MOTOR FEED PUMP WAS TO BE PROTECTED AS REQUIRED BY ONLINE RISK MANAGEMENT STRATEGY
The inspectors identified a Non-Cited Violation (NCV) of 10 CFR 50.65(a)(4) for the licensee's failure to manage risk during a Division 1 outage on November 3, 2003. The licensee failed to communicate that the motor feed pump (MFP) was to be protected as required by their online risk management strategy. As a result, the MFP was not posted as protected equipment in accordance with site policies and procedures nor, more significantly, was control room supervision aware that the MFP required such protection. Once the condition was brought to the attention of control room personnel, the area was immediately posted.

This finding was more than minor because it could reasonably be viewed as a precursor to a more significant event. Specifically, since the control room was unaware of the need to protect the MFP, the inspectors concluded that work on or near the MFP could have been authorized. Further, without the local posting and with the absence of the MFP on the promulgated list of protected systems, workers would not have questioned the release of work on the MFP nor demonstrated heightened awareness when working in the area. In addition, had the MFP become unavailable, the plant's online risk configuration would have crossed the yellow to orange threshold. The finding was of very low safety significance because no work occurred to cause the MFP to become unavailable.

Inspection Report# : 2003010*(pdf)*

Significance: G Dec 31, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO VERIFY COMPONENT OPERABILITY DURING SYSTEM RESTORATION FOLLOWING REMOTE SHUTDOWN SYSTEM SURVEILLANCE TESTING
The inspectors identified a non-cited violation of Technical Specification 5.4, Procedures, for the licensee's failure to perform verification of component operability during system restoration following surveillance testing of the Division 2 remote shutdown system on September 9, 2003. While the licensee tested the capability of the system to control safe shutdown systems from outside the control room, the inspectors observed that the licensee failed to verify that control capability was returned to the control room prior to declaring systems and components operable. Specifically, the licensee failed to verify reestablishment of safety-related circuit continuity, such that the components could be operated from the control room during system restoration. The inspectors additionally noted that the licensee did not test the ability of the transfer switch to isolate the control circuitry from the control room.

This finding is greater than minor because it was associated with the mitigating system cornerstone attribute of equipment reliability and the finding is associated with the objective of ensuring operability, availability, reliability and function of the safety-related systems. The inspectors determined that the finding was of very low safety significance in accordance with the Significance Determination Process Phase 1 worksheet because the continuity of the safety-related circuitry was subsequently successfully demonstrated by other licensee surveillance procedures. Therefore, no actual loss of safety function occurred.
Inspection Report# : 2003010*(pdf)*

Significance: W Dec 31, 2003
Identified By: NRC
Item Type: VIO Violation
INADEQUATE LPCS/RHR 'A' FILL AND VENT PROCEDURES RESULTS IN SYSTEM INOPERABILITY AFTER LOSS OF OFFSITE POWER
An apparent self-revealed violation of Technical Specification 5.4 occurred when the waterleg pump for low pressure core spray (LPCS) and residual heat removal (RHR) 'A' became air bound following a loss of offsite power. Subsequent investigation revealed that the procedures for venting these systems did not include the high point vent valve on the discharge of the pump, thus allowing gas to accumulate in a vertical section of system piping. When the waterleg pump lost power on August 14, 2003, the accumulated gas expanded and caused voiding of the pump. As a result, both LPCS and RHR 'A' were rendered inoperable.

The NRC assessed this finding through Phase 3 of the Significance Determination Process and made a preliminary determination that it is an issue with low to moderate safety significance.

After considering the information developed during the inspection, the NRC has concluded that the inspection finding is appropriately characterized as White (i.e., an issue with low to moderate increased importance to safety) and a final Significance Determination Process letter was issued on March 12, 2004, and will be inspected within the scope of a supplemental 95002 inspection in May 2004
Inspection Report# : 2004006*(pdf)*

Significance: G Sep 30, 2003
Identified By: NRC
Item Type: FIN Finding
FAILURE TO MAINTAIN FIRE BARRIERS
The inspectors identified a finding of very low safety significance for the failure of the licensee to promptly identify a degraded fire barrier between the Division 3 and Division 2 Emergency Diesel Generator (EDG) rooms. The inspectors observed that with the ventilation system operating as required for EDG operations, the fire door separating the two rooms would not close without assistance and thus, was an impairment or degradation of a fire protection feature.

This finding is greater than minor because it is associated with fire protection equipment performance and degraded the ability to meet the cornerstone objective. This issue had very low safety significance because the separation of redundant trains of safe shutdown equipment was not compromised.

Inspection Report# : 2003006*(pdf)*

Significance: G Sep 30, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO ESTABLISH PERFORMANCE CRITERIA FOR (a)(1) SYSTEMS
The inspectors identified a Non-Cited Violation of 10 CFR 50.65(a)(1) for the failure of the licensee to monitor the performance of the rod control and information system (RCIS) against licensee established goals. The licensee Maintenance Rule expert panel approved re-categorization of the system function of manual rod insertion to (a)(1) on November 6, 2002. As of September 25, 2003, the licensee had failed to establish goals for system monitoring. The inspectors identified a similar deficiency with five additional systems or system functions currently classified as (a)(1) by the licensee.

This finding is greater than minor because it was associated with the mitigating system cornerstone attribute of equipment reliability and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Although not suited for Significance Determination Process review, the finding was determined to be of very low safety significance in that the failure to establish goals and monitor system performance in accordance with 10 CFR 50.65(a)(1) did not directly result in additional system or function failures.
Inspection Report# : 2003006*(pdf)*

Significance: W Sep 30, 2003
Identified By: NRC
Item Type: VIO Violation
IMPROPER MAINTENANCE CAUSES EMERGENCY SERVICE WATER PUMP FAILURE
A self-revealed apparent violation of Technical Specification (TS) 5.4 occurred when the Division 1 emergency service water (ESW) pump failed during routine pump operation. The licensee rebuilt the pump in 1997 and during this reassembly, failed to properly reassemble the pump shaft connections. The improper reassembly led to pump failure on September 1, 2003.

The NRC assessed this finding through Phase 3 of the Significance Determination Process and made a preliminary determination that it is an issue with low to moderate safety significance. On January 28, 2004, a final significance determination letter was issued which characterized this issue as white.
Inspection Report# : 2004005*(pdf)*

Significance: G Sep 12, 2003
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
FAILURE TO IMPLEMENT AND FOLLOW PROCEDURES FOR DIESEL GENERATOR OPERATION
A self-revealed violation of Technical Specification (TS) 5.4 occurred on August 21, 2003, when the Division 1 emergency diesel generator (EDG) failed its surveillance due to high output voltage. Technical Specification 5.4 required maintenance and implementation of procedures required by Regulatory Guide1.33. Regulatory Guide 1.33 required procedures for EDG operation. Licensee procedures did not provide direction to perform proper EDG restoration following an automatic EDG trip.

The finding was greater than minor because it could reasonably be viewed as a precursor to a significant event and was associated with the mitigating system cornerstone attribute of equipment reliability. The finding affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the EDG was relied upon to provide emergency power to safety systems in the event of a LOOP. The finding is of very low safety significance because no damage to equipment occurred and operators would have been able to restore proper EDG output voltage. As such, no loss of safety function would have occurred.
Inspection Report# : 2003009*(pdf)*

Significance: G Aug 01, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
INADEQUATE IDENTIFICATION OF EXTENT OF CONDITION ASSOCIATED WITH HIGH PRESSURE CORE SPRAY PUMP FAILURE TO START
The inspector identified a licensee performance deficiency involving a Non-Cited Violation for failure to promptly identify and correct a condition adverse to quality. The inspector determined that while the licensee's evaluation of the high pressure core spray pump failure to start event properly identified the root cause of this issue to be inadequate procedural guidance for cell switch alignment and inspection, the licensee failed to identify that the same procedural inadequacy existed in other licensee procedures. Specifically, the licensee inaccurately concluded that 5kv and 15kv breaker auxiliary switches were not affected by the issue.

Inspection Report# : 2003007*(pdf)*

Significance: G Jun 30, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO FOLLOW PROCEDURES FOR SHIFT AND RELIEF TURNOVER
A self-revealed violation of Technical Specification 5.4 occurred on May 7, 2003, when the licensed operator "at the controls" left the "at-the-controls" and operations area of the control room without using the appropriate procedure for shift and relief turnover. During the individual's absence, a control room annunciator was received. When the alarm was not acknowledged, two licensed operators in the "at-the-controls" area (conducting an emergency diesel generator (EDG) surveillance run) observed the "at-the-controls" operator's absence and responded to the annunciator. Operations management was not made aware of the personnel error until approximately 16.5 hours later at which time a condition report was generated and the individual was relieved of licensed operator duties pending incident review and remediation.

The finding was more than minor because it could reasonably be viewed as a precursor to a significant event. In other circumstances, a second licensed operator may not have been in the control room. Additionally, the failure to promptly identify a performance deficiency was not consistent with site expectations. The finding was of very low safety significance because the annunciator was expected due to inclined fuel transfer system operation and the licensed operator was out of the "at-the-controls" area for only approximately 20 seconds.
Inspection Report# : 2003004*(pdf)*

Significance: G Jun 27, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to use an appropriate surveillance test procedure for the EDG using the fuel oil booster pump
NCV, 50-440/03-05-01, was identified for failure to use an appropriate surveillance test procedure in accordance with 10 CFR 50, Appendix B, Criterion V. Condition reports documented four repetitive fuse failures for the Division 2 emergency diesel generator nonsafety-related fuel oil booster pump from July 16, 2002 to September 18, 2002. Although the booster pump is nonsafety related, it is utilized as part of the emergency diesel generator start and load surveillance (surveillance instruction SVI-R43-T1318) required by Technical Specifications (TS) 3.8.1. The surveillance was not appropriate due to inclusion of a nonsafety-related, unreliable piece of equipment since during those periods when the booster pump had failed, actual diesel start time may have been outside of TS limits. The surveillance had never been run without the booster pump to demonstrate that the diesel would pass if the booster pump tripped.
This issue is more than minor because if left uncorrected it could become a more significant safety concern. Because no failure occurred during a surveillance test or in use, this issue had very low safety significance. (Section 4OA2.b)
Inspection Report# : 2003005*(pdf)*

Significance: G Jun 27, 2003
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Inadequate corrective action to preclude repetition of high pressure core spray (HPCS) drain line cracking
A self-revealing NCV, 50-440/03-05-02, was identified for inadequate corrective action to preclude repetition of high pressure core spray (HPCS) drain line cracking in accordance with 10 CFR 50, Appendix B, Criterion XVI. On May 13, 2003, following receipt of a high level sump alarm the licensee discovered a broken 3/4" HPCS drain valve on the test return line to the condensate storage tank. The broken valve sprayed water on equipment in the HPCS room which subsequently required drying and inspection. Prior to this failure, on January 11, 1998 and on April 19, 1999, the licensee had discovered and reworked the weld joint due to cracks and leakage.
This issue is more than minor because if left uncorrected it could become a more significant safety concern. Because the reactor was shut down at the time of the failure, this issue had very low safety significance. (Section 4OA2.c)
Inspection Report# : 2003005*(pdf)*

Significance: G Jun 27, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to take actions to correct deficiencies in contractor oversight which permitted contract personnel to err.
The inspectors identified an NCV, 50-440/03-05-03, for failure to take corrective action as required by 10 CFR 50 Appendix B, Criterion XVI. Specifically, the licensee failed to take actions to correct deficiencies in contractor oversight which permitted contract personnel to err in ways that had the potential to adversely impact the safety of the site.
The finding is of very low safety significance because the specific items identified did not initiate an event nor result in the loss of function of a mitigating system. The inspectors determined that the violation was more than minor using guidance in Appendix B, of Inspection Manual Chapter 0612. The inspectors determined that the failure to correct this condition could reasonably be viewed as a precursor to a significant

event and, in the case of local power range monitor configuration did affect the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. (Section 4OA2.c)
Inspection Report# : 2003005*(pdf)*

Barrier Integrity

Emergency Preparedness

Significance: W Sep 30, 2003
Identified By: NRC
Item Type: VIO Violation
FAILURE TO CLASSIFY AN ALERT WITHIN 15 MINUTES
The inspectors identified an apparent violation having preliminarily low to moderate safety significance when the licensee failed to follow the requirements of the Perry Emergency Plan during an ALERT level event on
April 24, 2003. During this event, damage to irradiated fuel caused a high alarm on the fuel handling building ventilation exhaust gaseous radiation monitor.

After considering the information developed during the inspection and at the Regulatory Conference, the NRC has concluded that the inspection finding is appropriately characterized as White (i.e., an issue with low to moderate increased importance to safety, which may require additional NRC inspections).
Inspection Report# : 2003006*(pdf)*
Inspection Report# : 2004003*(pdf)*

Occupational Radiation Safety

Significance: G Jun 30, 2003
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
FAILURE TO PROVIDE CONTINUOUS RADIOLOGICAL SURVEILLANCE
A finding of very low safety significance was self-revealed during work in the reactor water clean up (RWCU) heat exchanger (HX) room when the licensee failed to provide continuous radiological surveillance (electronic telemetry dosimetry) for a worker in an area where a major portion of the body could receive in one hour a dose >3000 mrem, as required by Technical Specification 5.7.4.

The finding was more than minor because the failure to provide continuous monitoring in a high radiation area resulted in an individual worker's unplanned, unintended dose, and resulted from actions or conditions contrary to licensee Technical Specifications. This finding was associated with the "Programs and Processes" and "Human Performance" attributes of the Occupational Radiation Safety Cornerstone and affected the cornerstone objective of ensuring the adequate protection of worker health and safety from exposure to radiation. The finding was of very low safety significance because it did not involve as-low-as-is-reasonably-achievable (ALARA) planning or work controls, there was no overexposure or a substantial potential for an overexposure, and the ability to assess dose was not compromised. This was a violation of Technical Specification 5.7.4.

Inspection Report# : 2003004*(pdf)*

Significance: G Jun 30, 2003
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
FAILURE TO PLACE DOSIMETRY TO PROPERLY REFLECT HIGHEST WHOLE BODY DOSE
A finding of very low safety significance was self-revealed during work in the RWCU HX room when the licensee failed to place dosimetry to properly reflect the highest whole body dose for the working position as required by licensee procedure HPI-C0005, "Radiation Work Permit Surveys and Surveillances."

The finding was more than minor because the failure to place dosimetry to properly reflect the highest whole body dose for the working position resulted in an individual worker's unplanned, unintended dose and resulted from actions or conditions contrary to licensee procedures. This finding was associated with the "Programs and Processes" attribute of the Occupational Radiation Safety Cornerstone and affected the cornerstone objective of ensuring the adequate protection of worker health and safety from exposure to radiation. The finding was of very low safety significance because it did not involve as-low-as-is-reasonably-achievable (ALARA) planning or work controls, there was no overexposure or a substantial potential for an overexposure, and the ability to assess dose was not compromised. This was a violation of licensee procedure HPI-C0005.
Inspection Report# : 2003004*(pdf)*

Significance: G Jun 30, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO PROPERLY CONTROL ACCESS TO A LOCKED HIGH RADIATION AREA
A finding of very low safety significance was NRC-identified during work in the drywell when the licensee failed to properly control access to a locked high radiation area (LHRA), as required by Technical Specification 5.7.2 and 5.7.3.

The finding was more than minor because the failure to adequately control access to Technical Specification LHRAs had an impact on radiological safety (external dose) and if not corrected would become a more significant concern given the elevated dose rates that occur in accessible areas during refueling outages. The finding was associated with the "Programs and Processes" attribute of the Occupational Radiation Safety Cornerstone and affected the cornerstone objective of ensuring the adequate protection of worker health and safety from exposure to radiation. The finding was of very low safety significance because it did not involve as-low-as-is-reasonably-achievable ALARA planning or work controls, there was no overexposure or a substantial potential for an overexposure, and the ability to assess dose was not compromised. This was a violation of Technical Specification 5.7.3
Inspection Report# : 2003004*(pdf)*

Public Radiation Safety

Physical Protection

Miscellaneous

Significance: N/A Jun 27, 2003
Identified By: NRC
Item Type: FIN Finding
PI&R Biannual Summary
The team concluded that, in general, the licensee effectively identified, evaluated, and corrected plant problems. Problem identification was determined to be effective based on the limited examples of missed issues the team identified. Licensee audits and assessments also identified issues similar to NRC observations. Generally, corrective actions were appropriate based on the identified causes and were effective; however, a notable number of repetitive issues were identified indicating need to be more aggressive in resolving issues. Plant staff willingness to identify safety issues, a user friendly condition report initiation process, and a low program threshold for initiating condition reports supported a safety conscious work environment.
Inspection Report# : 2003005*(pdf)*

Last modified : June 28, 2004